

DP-307865

**ACCELERATION SENSOR ASSEMBLY FOR RESTRAINT RETRACTOR****5 ABSTRACT OF THE DISCLOSURE**

An acceleration sensor assembly for a restraint retractor of a seat restraint system in a vehicle includes an acceleration sprocket operatively connected to the restraint retractor. The acceleration sensor assembly  
10 also includes an acceleration pawl cooperating with the acceleration sprocket to operatively cause lock up of the restraint retractor. The acceleration sensor assembly includes an inertia member cooperating with the acceleration pawl to move the acceleration pawl when an  
15 acceleration force is present and a gimbal to support the inertia member. The acceleration sensor assembly further includes a non-contact damping mechanism cooperating with the gimbal to dampen movement of the gimbal until the acceleration force exceeds a predetermined value and the  
20 inertia member actuates the acceleration pawl to engage the acceleration sprocket to operatively cause lock up of the restraint retractor and prevent unwinding of a belt from the restraint retractor.